

	MXULTRA Sub-Project	μ	
Description Date	Obligations Expenditure	Balance	
2			
	(dde 10 10 10 10 10 10 10 1		
	disable		

144

-44-

. nerso Cuthogetice "2 . Sel 44. 11 AUG 19,55 2 feele



14 July 1961

MEMORANDUM FOR: Chief, Finance Division

VZA

: TSD/Budget Officer

SUBJECT

: MKULTRA, Subproject 51-B, Invoice No. 12, Allotment 2125-1390-3902

L invoice No. 12 in the amount of \$10, 712,00 covering the above subproject is attached. However due to a refund of \$535.57 from MKULTRA Subproject No. 44 (as per attachment) payment should be made as follows:

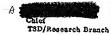
Cashier's check in the amount of \$9,764, 43 drawn on a

Cashier's check in the amount of \$412,00 drawn on a

Both checks should be made payable to the

 The checks should be forwarded to Chief, TSD/Research Branch, through TSD/Budget Officer, no later than 26 July 1961.

 This is a final invoice. However, since it is anticipated that additional funds will be obligated for this project, the files should not be closed.



Attachmenter
Invoice & Certifications

Distribution:

Orig & 2 - Addressee

Project 44 file

2 - TSD/RB

rsd/



Selection Color

War Samilyan

\$10,712.00

menantal and the fire

(i) In the depend contribute their table is larged B_c the point of according to an expenditure as SLB* (100 Ma), their gurff-consistent is contributed to the contributed contributed and the contributed are supplied to the contributed as a factorial to the final contributed as a factorial to the final contributed as a factorial form of the final contributed as a factorial form of

The state of the state of the state of

A the saw terrory rectal fact that the control of the same of the

بالمحافظة والمراجع والمحافق المستوسي المناقب



CERTIFICATION

(3) R is hereby certified that under Subproject 44 at the close of FY 1960 a balance of \$535.57 representing unused funds remained. Therefore it is requested that \$535.57 of Invoice No. 12 be credited to Subproject No. 51-B as a return of unused funds FY 8-2502-10-001, MOR 336.



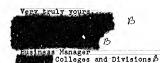


June 21, 1960



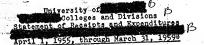
I am enclosing herewith an original and one copy of the final report of expenditures for the period of April 1, 1955, through March 31, 1959, covering the grant-in-add-to-Dr.

Also enclosed please find a University Check
No. 8910L, in the amount of \$555.57 which covers the
unexpended balance remaining in this account.



Enclosures

cc: Dr. B



Receipts:

Checks received during 1955 Checks received during 1956	\$ 8,108.00 16,216.00	
Checks received during 1957 Checks received during 1957 Checks received during 1958	16,216.00 8,108.00	\$ 48,648.00

Expenditures:

Salaries and Wages Consumable Supplies Equipment Travel	\$ 24,501,72 9,616.37 2,484.85 1,055.18	
University Retirement Workmen's Compensation Indirect Cost	351.59 8,808.00	\$ 48,112.43

Balance as of March 31, 1959



Business Manager Golleges and Divisions

APPROVED:

M. D.

I have examined and approved the submitted

TSS/Chemical Division

#Final Report

ates 6/32/

27 January 1960

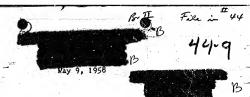
MEMORANDUM FOR: THE RECORD

SUBJECT : Action on MKULTRA Andit Exceptions - TSS/CD

SP#44

Dr: has been contected this date and an additional request made for submission of an accounting of furds since 3/31/53. We have been assured that action is being taken to couply with the request.

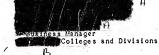






I am enclosing herewith an original and one copy of a financial statement for the period April 1, 1955, through March 31, 1958, covering the grant-in-aid from your organization to Draws

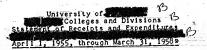
Very truly yours,



be ∜ Enc. 2

cc: Dr.

__



Receipts:
Checks received during 1955 \$ 8,108,000
Checks received during 1956 16,216,00
Checks received during 1957 16,216,00

\$40,540.00

 Expenditures:
 \$19,061.72

 Salaries and Wages
 6,699.64

 Consumable supplies
 6,699.64

 Equipment
 22,434.65

 Travel
 826.99

 University Retirement
 859.51

 Workmen's Compensation
 274.68

 Indirect Cost
 7,150.00

37,907.10

Balance as of March 31, 1958

2,632.90



APPROVED:



Thave examined and approved the submitted expenditures.

TSS/Chemical Division

Interim report

Date: 1/1/5

DECETOR"

I hereby acknowledge receipt of the following two checks:

official Check No. 209-330405, drawn on of dated April 30, 1958, in the amount of \$16,216.00, 15

Treasurer's Check No. 7E 12918, drawn on Company E of , dated April 30, 1958, in the amount of \$48.64, payable to the



8- 2502-10- 001

ALLOT CELLS

Sel. 11 OBLIGATIONS. CIDILLATIVE QBILIDATICSS REPORTS AND REFERENCES EATS DROURRED LIQUIDATED EXPEND. 6 AUG 24,APR 16 864.64 RECEIVED. 5 THE AMOUNT OF \$ 648 . 64



21 April 1958

MENOPARIUM FOR: CHIEF, FIRANCE DIVISION

VIA

188/Budget Officer

SUBJECT

MODITRA, Subproject 44, Invoice #5, Allotment 8-2502-10-001

1. Invoice No. 5 for the above subproject is attached. Payment should be nede as follows:

> Cashier's check in the encunt of \$16,216.00, bank. -drawn on a si

Cashier's check in the amount of \$648.64, drawn on bank.

Both checks should be made payable to the

2. Please forward the checks to Chief, TSS/Chemical Division, through TSS/Budget Officer, no later than Monday 12 May 1958.

3. This invoice represents the total amount currently sutherized under Subproject 56. However, since it is anticipated that additional funds will be obligated for this project, the files should not be closed.

TSS/Chemical Division

Attachmeniter Invoice and Certifications

Distribution: Orig & 2 - Addressee TSS/FASB

2 - TSS/CD

ALTEROTICA O GATELA



TWYOTCE

For services

\$16,864.64

CERTIFICATIONS

(1) It is hereby certified that this is Invoice Bo. 5 applying to Subproject 44 of WILLIAM, that performence is satisfactory, that services are being accomplished in accordance with mutual agreements, that a datalled agends of the payments and receipts is on file in ISS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

- Delet

(2) It is hereby certified that this invoice applies to Subproject 44 of MULTRA which was duly approved, and that the project is being carried out in accordance with the accordance dated 13 April 1993 from the DCI to the DD/A, and the extension of this authority in subsequent respressed.

Research Director

Data.

1

44-15

- 12 August 1957

MEDICAL PORT COMPTROLLER

ASSESSMENT

: Finance Division

SUBJECT

: Project MCULTRA, Subproject 14

Under the authority granted in the Monorandum dated

13 April 1953 from the DUI to the ID/A, and the extension of this
enthority in subsequent menoranda, Subproject 14 has been approved,
and \$16,804.00 of the over-all project MULITEA funds hog been
chlighted to cover the subproject's expenses and should be charged
to Allotment 8-2502-10-001.

Acting Chief TSS/Chemical Division

APPROVED	FOR	OBLICATION OF PURDS:

The state of the s

Research Director

Distributions

Orig & 2 - Addressee

1 - TSS/CC 2 - TSS/FASB 1 - TSS/SRB

1 - TSS/SRI 2 - TSS/CD

COST

5/ BO



12 August 1997

MINDRARDIM	TOR'S	COMPERCLIZA

APPENTION : Pinance Division

SUBJECT

: Project MULTA, Subproject 44

Under the authority proced in the Momorandum dated

13 April 1953 from the DOI to the DD/A, and the extension of this
authority in subsequent removands, Subproject 44 has been approved,
and \$16,864.64 of the over-all project MOUNTA funds has been
chlished to cover the subproject's expenses and should be charged
to Allotzont 8-2502-10-001.

Acting Chief TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

Research Director	
Deta	
Distributions Orig & 2 - Addresses	

1 - TSS/FASI 1 - TSS/SRB

SECRET





13 August 1957

MEMORANDUM FOR: THE ASCORDER, CO ST. 197475

SUBJECT

Project MKULTRA, Subproject 44

- SUBJECT : Project Months, Subproject
- 1. The purpose of this subprotect is to continue the research being carried out by Professor. For the University of This work is simed at the design of laboratory methods for screening psychochemical materials. These methods can then be the basis for procedures to be carried out in other TSS/CD laboratories on a classified basis.
 - 2. During the past year the goal of this project was the perfection and testing of two specific assay methods related to the above problem. This goal was adequately reached and in addition a considerable amount of incidental information was accumulated which has added to the general knowledge of materials which affect the ceptral pervous system.
- 3. The funds for this project will be transferred using the as a cut-out in the usual
 - 4. The total cost of this program for a period of one year beginning 1 July 1957 will be \$16,216.00. To this must be added a four percent (4%) service charge to the for its services. But the total cost for the above period will thus not exceed \$16,864.64.
 - has requested the University to submit to B them a summary accounting of monies received from the Fund. Also, they requested the return of any unexpended funds received under a grant from the Fund at the end of the program.
 - 6. Title to any permanent equipment purchased by funds granted the University ball be retained by the University in lieu of higher overhead rates.
 - It is agreed that documentation and accounting for travel expenses which are reimbursable by the University shall conform to the accepted practices of that Institution.

Attachments: Proposal

Proposal . Budget

APPROVED FOR OBLIGATION OF FUNDS:

de - 16- 19-7

Distribution: Orig. only.

by author of common date:

23 IMPDET: CL BY 1872

Acting Chief

TSS/Chemical Division

A STATE OF THE STA



June 11, 1957



Thank you for your kind reminder, over the telephone, last week in asking me for a request in the renewal of our grant the second of the secon

I progress report of the project during the academic year 1956 - 1957 is appended.

The general plant of our research for the coming year consists in further perfection of methodology and in the examination by our new methods of a large number of important agents with potential effects on behavior. This research is not supported by other sources.

Our request/is again for the same sum of \$16,216.00. The proposed budget plan is as follows:

Seleries (Research Assistants and Technicians)	10,000	
Equipment	500	
Expendable Supplies	2,037	0.00
Travel	600	



Workmen's Compensation Employer's Contribution to Retirement System 813 2,116

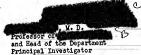
University Overhead or Indirect Costs 15%

Total

\$16,216.00

I shall be greatful if your Foundation will support our project for another year.

Sincerely yours,



. 6





RECEIPT

I hereby acknowledge receipt of the following two checks:

Cashler's check No. DM 37787, drawn on dated September 14, 1956, in the amount of \$10, 810, 87, payable to the

Cashler's check No. A105603, drawn on the dated September I7, 1956, in the thrount of \$430.43, payable to the

Dater

20 Sept. 5



10 September 1956

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA:

TSS/Budget Officer

SUBJECT:

MKULTRA Sabproject 44 Invoice No. 4, Allotment 6-2502-10-001

1. Javoico No. 4 for the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$10, 810.67, drawn on a bank,

Cashier's check in the amount of \$432.43, drawn on a bank.

Both checks should be made payable to the

2. Please forward the checks to Chief, TSS/Chemical Division through TSS/Budget Officer by Monday, 1 October 1956.

3. Tels is a final invoice. A total of \$16,864.64 was obligated under this subproject during FY 58. However since it is anticipated that additional funds will be obligated for this project, the files . should not be closed.

SIDNEY GOTTLIEB Chief TSS/Chemical Division

Attachments: Invoice & Certifications Distribution: Orig & 2 - Addressee

> 1 .- Comptroller 1 - TSS/FASB

2 - TSS/CD 7

aca (10 September 1956)

ORIGATION FOR POTAT NO. 6. 2502.10.001

CHECK DU 37787 THE AMOUNT OF SAME

RECEIVE 18,550

CHECK# 105603 : THE AMOUNT DE SISE

\$11, 243, 10



CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 4 applying to Subproject 44 of MKULTRA, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 44 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

Receipt is hereby acknowledged of the following two checks:

Cashier's Check No. DM 36875, dated July 11, 1956, drawn on the in the amount of 15, 405, 33, payable to the

Official Check No. G 9586, dated July 12, 1956, drawn on the in the amount of \$216.21,

Receipt is hereby acknowledged of the following two checks:

Cashler's Check No. DM 36875, dated July 11, 1958, drawn on the \$5, 405, 33, payable to the

Official Check No. G 9586, dated July 12, 1956, drawn on the

2 July 1958

MEMORANDUM FOR CHIEF, FINANCE DIVISION

YZA:

Tas/Budget Officer

SUBJECT

MKULTRA Subproject 44 Invoice No. 3, Allotment 8-2502-10-001

1. Invoice No. 3 for the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$5, 405.33, drawn on a bank. Cashler's check in the amount of \$216.21, drawn on a

bank.

Both checks should be made payable to the Other invoices will follow later.

2. Please forward the checks to Chief, TSS/Chemical Division through TSS/Budget Officer by Wednesday, 18 July 1958.

> Acting Chief TSS/Chemical Division

Attachments: Invoice & Certifications (Orig & 1)

Distributions Orig & 2 - Addressee

1 - Comptroller

- FASB/TSS 2 - TSS/CD

I CERTIFY THAT FUNDS ARE AVAILABLES 5

CHECK#6 9884N THE AMOUNT OF \$26.2 RECEIVED.16,100

JUBILE 611 LEHECK HOTATION THE AMOUNT OF \$240033 ELVED.13.44



For services

\$5, 821, 54



CERTIFICATIONS

(i) It is hereby certified that this is Invoice No. 3 applying to Subproject 44 of MKULTRA, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

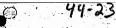
Acting Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoce applies to Subproject 44 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:



XUJAPINI SELEMBIONS CBIECATE (#A (6)10N 864.64 5 195 11,560

23 June 1955

44-24

MEMORANDUM FORE COMPTROLLER

ATTENTION:

Finance Division

SUBJECT

MKULTHA, Subproject 44, Additional Authorization No. 3

I. Under the authority granted in the memorandum dated 13

April 1953, from the DCI to the DD/A and the extension of this
authority in subsequent memorands. Subproject 44 was previously
approved. Under the same authority an additional sum of \$16,864.64
has been authorised to cover the subproject's expenses (thereby
bringing to a total of \$25,728.28 funds obligated during FY \$6).

to be charged to Allotment 8-2502-10-001.

Acting Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION
OF FUNDS:

A 23/563

Charle to (2352-0

Dates

Distribution: Orig & 2 - Addressee

> 1 - TSS/OC: 1 1 - TSS/FASB 1 - TSS/SRB

2/ TSS/CD3 St VH .22 TSS/CD3 St VH .22

SETTNING

MEMORANDUM FOR: THE RECORD

SUBJECT:

Project MKULTRA, Subproject 44

I. The purpose of this project is to provide funds for the continued partial support of Professor work on at the

The solution to the problem of assay methods of this type is of paramount importance to a considerable area of the work going on in TSS/CD. The lack of adequate 1 sthods of this kind has proved to be a bottleneck in the synthetic chemical field as well as in that of the extraction of botanical sources across the board.

- 2. In addition to being eminently qualified to pursue this study, Professor the pecialized knowledge in the field of curarizing cagents and his up-to-date knowledge of the personnel has been of great value to the Agency in the past.
- The physical facilities made available by this project are as follows:
 - 1. The complete pharmacology testing laboratories of the
 - A ward with subjects for human testing at
 - The use of equipment and consultations with personnel in other medical departments at the
- The funds for this project will be transferred using the usual manner.
- 5. The total cost of this program for a period of one year beginning I July 1956 will be \$16, 216.00. To this must be added a four percent (4%) service charge to the

Downgraded to: (@Milators by a thority of the condate:), 19877 services. The total cost for the above period will thus not exceed \$16,884.64.

- 6. The as requested the University to submit to them a summary accounting of monies received from the Fund. Also, they requested the return of any unexpended funds received under a grant from the Fund at the end of the program.
- 7. Title to any permanent equipment purchased by funds granted the University School of Shall be retained by the University in lieu of higher overhead rates.
- It is agreed that documentation and accounting for travel expenses which are reimbursable by the University shall conform to the accepted practices of that Institution.
- It is agreed that technical reports reflecting the progress of the research program should be submitted at mutually acceptable intervals.

10. is cleared TOP SECRET by the Agency and is aware of the sensitive nature of the work.

Acting Chief TSS/Chemical Division

Attachments:

Budget

APPROVED FOR OBLIGATION OF FUNDS:

Research Director

Date: June 26, 1916.

Distribution: Original only

MAN WARRY

Porngraded to: [[]]|| DOWN by admirately cate: 48 027



PROPOSAL

The results of the first year's work in this research program indicate that it is quite possible to design methods whereby chemical compounds having certain types of pyschomimetic effects can be detected without recourse to human testing except as the final confirmation. In order to do this it is, of course, necessary to determine first in model compounds of known potency those measurable peripheral effects which are related to the desired psychomimetic effect most directly. In other words, a given chemical grouping in a molecule may be responsible for certain peripheral reactions due to its presence in the peripheral circulation and yet be responsible also for a vastly different effect in the central nervous system due to the different metabolic processes responsible for the characteristic activity of the different types of tissue. Very few chemical compounds are known which produce only one kind of effect in the animal body. Compounds which produce the desired psychomimetic effect are no exception to this and in general seem to have a relatively wide spectrum of other effects on the animal. Since we are not at present able to measure psychological changes in animals with any degree of certainty we are limited to measurement of changes in those aspects of central nervous system activity which are reflected in the periphery or to purely peripheral effects of the chemical compound.

Two quite different families of problems emerge from a consideration of these facts. First of all, the detailed pharmacology of a number of materials having the desired activity has to be assembled, either from the literature or by determination. Once this information is at hand an analysis of the relationships between the various measurable effects coupled with the knowledge of how such effects are produced can lead to hypotheses about the relationship between various peripheral and central nervous system effects. These hypotheses can then be tested by experiment to indicate which measurable peripheral effect or group of effects is most likely to be an accurate measure of the psychomimetic effect. We are also faced here by the fact that we must determine whether a given compound has access to the body area of interest in addition to possessing the proper configuration to produce a psychomimetic effect once it gets there. This latter question is brought about by the existence of the blood-brain barrier which denies access to the central nervous system to many peripherally active compounds and possibly on the basis of chemical groups quite unrelated to those responsible for the compound's activity. Therefore, in order to make a useful screening technique we must not only measure activity but also the ability to cross this barrier with ease.

The work so far has indicated that chemical groups which alter the action of the body tem perature regulating center in a specific way seem also to possess the desired psychomimetic activity and such a test appears to have certain practical advantages from a laboratory point of view. Several other workable tests involving small animals such as the measurement of total body activity may also be useful indices of psychomimetic activity.

In the course of the work this year we have tested a number of compounds of a completely different chemical nature from the known psychomimetic agents. The animal tests indicate that these compounds may be psychomimetic in man. During the coming year we propose to complete the work on the screening techniques so far developed and put them on a basis that will make them useful as routine laboratory test procedures. Also, we shall continue work with the new agents, carrying them to human test to verify their psychomimetic activity. In addition, we will continue to test other series of compounds available to us as candidate agents in this area and those compounds submitted by the

BUDGET

: (1) ●	44-25
	1100

· ·		
ITEM	AMOUNT	TOTAL .
Salaries:		
Principal Investigators		
Research Associate (Dr. 6 Granduate Student	\$6,000.00 1,600.00	•-•
the same of the sa		\$ 7,600.00
Equipment and Supplies	4	4,200.00
Travel and Other Expenses		800.00
Workman's Compensation on \$7,600.00 @ 1.5%		114.00
Retirement on \$2,000.00 @ 7.79%		156.00
	Subtotal	\$12,870.00
Indirect Cost @ 26% of Subtotal		3,346.00
*	TOTAL	\$16, 216.00

I hereby acknewledge receipt of the fellowing checks:

Official Check #10209528 dated 22 Sept 55, amount of \$33,667.00,

Cushier's Check #UNIA122 dated 22 Sept 55,

Cashier's Check #UNIA123, dated 22 Sep 55, in the amount of \$432.43,

all three payable to the

16 September 1955

MEMORARDUM FOR: CHILD, FINANCE DIVISION

YIL

TSS/Budget Officer

SUBJECT.

MINISTA Subproject 44, Invoice #2 Allotment 5-2502-10-001 & 6-2502-10-001

1. Invoice #2 is attached covering the above subproject. This is a final invoice. It is requested that payment be made as follows:

One cashier's check in the amount of \$10,810,67, and a second shock for \$432.43, both draws on a bank and parable to the

2. Both checks should be forwarded to Chief, TSS/CD, through TSS/Budget Officer no later than 30 September 1955.

These two invoices covering this subproject aggregate \$16,864.64 and make use of the FY 55 funds obligated under this subproject plus the FT 56 funds obligated to date. Since it is expected that additional obligations of funds under this subproject involving correct Piscel Year funds will be meds, the files on this project should not be closed.

> STUTTED YEARS Chief: TSS/Chemical Division

	Certifications

Distribution:

Orig & 2 - Addressee 1 - Conctroller

1 - TSS/FASB 2 - TSS/CD

CERTIFY THAT FUNDS ARE AVAILABLE:

COLIGATION REFERENCE No. CHAPES TO ALLOTHEST No. 6. 2502- 10 - 001 8864.

AUTHORIZING OFFICER

2.(13 September 1955)

CHECK#_442-IN THE AMOUNT OF \$400-17



⁾ 44-ə7

INVOICE

For services

\$11,243,10

CERTIFICATIONS

(1) It is hereby certified that this is Invoice \$2\$ applying to Subproject \$4\$ of MEULTR, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Dates

(2) It is bereby certified that this invoice applies to Subproject 44 under MVLITA which was duly approved and that the project is being carried out in accordance with the memorandm dated 13 April 1953 from the DOI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Dete

SEPTE

44-28

9 August 1955

HENCHANDEN POR! CONTROLLIN

ATTENTION

s Finance Division

1. 1. 1.

s MEULIEL, Subproject 44, Additional

Authorisation No. 2

Under the authority granted in the memorandum dated
13 April 1953 from the DCI to the ID/A, and the extension
of this authority in subsequent memorands, Subproject Af
was previously approved. Under the same authority an
additional sum of \$3,864,64 has been authorized to cover
the subproject's expenses, (thereby bringing to a total of
\$3,864,64 funds obligated during FI 56) to be charged to
Allotmont 6-2502-10-001.

COLUMNION OF PUROS:

SIDNEY COTTLIES
Chief
TSS/Chemical Division

F CERTIFY THAT FUNDS ARE AVAILABLES
COLUGATION REFERENCE No. 222

CHARGE TO ALLOIMENT No. 6- 2572-10-001

AUTHORIZING OFFICER

Research Director

Dates

Distribution: Orig & 2 - Addresses

> 1 - TSS/00 11 - TSS/F1SB

1 - TSS/SRB 2 - TSS/CD

STATE

44-29

MEMORANDUM FOR: THE RECORD

SUBJECT

Addendum to Subproject 44

 The purpose of this addendum is to set forth the mutual administrative responsibilities of the contractor and sponsor.

C2. The above subproject represents the research program of Dr. financed by MULIRA, covering the period of 25 April 1955 through 31 March 1956.

3. The submit to them a summary accounting of monies received from the Fund. Also, they requested the return of any unexpended funds received under a grant from the Fund.

4. Title to any permanent equipment purchased by funds granted the University, School of the University in lieu of higher overhead rates.

5. It was mutually agreed that documentation and accounting for travel expenses which are reimbursable by the University shall conform with the accepted practices of that Institution.

 It was agreed that technical reports reflecting the progress of the research program shall be submitted at mutually acceptable intervals.

SIDNEY COTTLIES
Chief
TSS/Chemical Division

APPROVED:

Chief, TSS

Distribution: Orig & 1 - TSS/CD

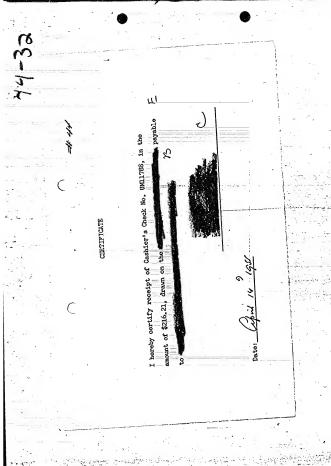
SOUTH

CERTIFICATE

I hereby certify receipt of Cashier's Check No. FE/633, in the amount of \$5,05.33, drawn on the

###

			_			
7. E		11,5 -)	(Zagan Aran Ingel)		1	1.4
-			•		1 4.	
			0		7.5	
<u>(</u>					1	
APR 13 1955	`			()		
3 1	. //			- × 1		,
2	1 3			100 /5		1 9 0 1
A P	11					
(12				1	
15.00	, Y		3, .		140	missing the second
J .	. 3000		1		1 1	
400 . 1	7	1	in the		i	
	Tare.	- 16	, h			ACTION AND THE PERSON NAMED IN
-				- 47	1	74 <u> </u>
E .		ow.i	5			4
Æ		4	AMGUNT			4 4 7 7 2 2 7 1
§		the following:	1	-		e e e e e e e e e e e e e e e e e e e
MEMORANDUM RECEIPT		ş	<u>ф</u>			
Š.		9		E	-	Arrest per
꾶		I hereby acknowledge receipt of	<u>z</u>		-	
		cei	3			
<u></u>		2	0.0	:		
C		8	CHECK# <i>[L403</i> IN RECEIVED.	gned copy(les) of		
		ğ	55	8		-
		od .	. TW	THE STATE OF		
1.	٠.	ackn	,	manual en		
		ρ	1			B
		9	214	2.		
		<u>д</u>		٤		
	Ħ					
2		.5	1		ON MAN	the selection of
Ë	FROM: SUBJECT:				223	11
1	. 6	40	7.			<u>.</u>
			Cale minimum or stee	Colonia	- المستسلم	
		100		4. 1		



THE AMOUNT OF SAM hereby acknowledge receipt of the following: MEMORANDUM RECEIPT SUBJECT: FROM:

1 April 1955

REMERANDOM FOR: CHIEF, FINANCE DIVISION

TIA

TES/Budget Officer

: Project MAULIEL, Subproject No. 44 Invoice #1. Allotagut 5-2502-10-001

Invoice No. 1 for Subproject 44 of Project MULIRA is attached. Other invoices will follow later. It is requested that payment be made by two cashiers checks, one in the amount of \$5,405.33, and one for \$216.21, payable sheeks should be sent to Chief, TES/CD through TSS/Budget Officer by Wednesday, 6 spril 1955.

> STREET COTTLINE Chief TSS/Chemical Division

RECEIVED. APR 1 3 1955

Attachments Invoice & Certifications

Distributions Orig & 2 - Addressee

. 1 - Comptroller

11 - TSS/FASB

2 - TSS/CD

HECK##JULFIN THE AMOUNT OF \$2641 RECEIVED. APR 1 4 1955

CHECK# 43 IN THE AMOUNT OF \$545.3

I CERTIFY THAT FUNDS ARE AVAILABLE

OBLIGATION RESEARCES III. CHARGE TO ALLETHICHT JO.

4 APR ENTO

UTHORIZING OFFICER

SECRET

• 44-34

INVOICE NO. 1

31 March 1955

\$5,621.54



B

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. I applying to Subproject 44 of Project EUULINA, that performance was satisfactory, that the services were acceptished in accordance with mutual agreements, that a detailed agenda of the payments and receipts are on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

later			
	STONKY	COTTLIEB	455
	Chief	TSS/CD	3
	Carros.		147

(2) It is bereby certified that this invoice applies to Subproject 44 under Project KRULTA which was duly approved and that the project is being carried out in accordance with the memoranhum dated 13 April 1953 from the DOI to the DD/A, and the extension of this authority in subsequent memorands.

Date:

Research Director

A

22 March 1955

MEDICRANDUM FOR CONSTROLLER Finance Division

ATTENTION

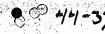
: Project MONITAL, Subproject 44 SUBJECT

Under the authority granted in the Memorandum dated 13 April 1953 from the DOI to the DD/A, and the extension of this authority in subsequent memorands, Subproject Al has been approved, and \$8,000,00 of the over-all project HAVILIEA funds has been chligated to cover the subproject's expenses and should be charged to Allotsont 5-2502-10-001.

	\$P.47.65	1
APPROVED.	FOR OBLIGATION	
OF PURDS!	Α	
- 1 40 40 21 10		
	一种一种特别的	
Rage	erch Director	
	weeks.	
Beter	was 's 855°	
	the state of the s	
Distribu	Lions	
Orig &	2 - Addresses 11 - TSS/00	
	1 - TSS/FASB	4
and the first	1 - TSS/SRB	
	2 - TSS/CD	
I CERTIFY THAT FUNDS	ARE AVAILABLE: A	
OBLIGATION REFERENCE NO.		
THE REPORT OF THE	114	Encire
CHARGE TO ALLOW HE - TO _	5-7512-10-101	The same
	1 APR ENTO	TV

		(20	NDER WILL CIRCLE	CLA ICATION TO	P AND BOTTOMY	SECRET
×			CENTRAL IN	TELLICENCE A	THEY CO	
K	4		OFFICIAL	the first term to be and	Color Inches	
6		-	10	distant to	30.15 A	
	200	1000		建筑的关于	SHEET STATE	Contract of
	то	North State	· · · · · · · · · · · · · · · · · · ·		INITIALS	DATE
Ý.	1	TSS	loc	* A		11000
1	17	135	125	等级行家	V	474
		10 to	W.T.	61 St 18 3	S CHANG	等社会
3				5. 20 K	No. Sant	Sec. 22
*	3		47000	3. 3. 3. 16 Sec. 305		30.5%
1	FROM				INITIALS	DATE
	72 mil.	LY STATE TO	Park Staff och	1 24 N		0/
	1.	TSS	1C2	THE PARTY	1	1/28
1	. 27		AND AND	Septimize the	1	多图多
3			40元本书	建设	0.4.3	18 Sept
	100	4	THE STATE OF	1943 Sec.	C. Bowl	N37.30 30
2	\$ C	APPROYAL	1	FORMATION		SIGNATURE
3		ACTION .	0	RECT REPLY		RETURN
V	Č	COMMENT	ે ⊏ ા!	EPARATION OF RE	PLY.	DISPATCH
M	0.00	CONCURRE	NCE R	3 3 1		FILE
	1.00		140 C	Part Car	150 79 -42	W. The same
()	Ren	arksı			100	
1	1 -		4			
1	λ :			22	10 TO	45
3						
1	1.1	1972			94.0	1
	* 1	公司		2.4	20 A	李安二
- 6	1.00	1000	(1.7 · 2 ·			1,00
-						
	.	1300	7. A. C. C. C.			3 10 10 10
		1	CONFIDE	NTIAL	UNCL	SSIFIED





DRAFT/22 March 1955

MEMORANCIM FOR: THE RECORD

SUBJECT

- Project MKULTRA, Subproject 44
- The purpose of this project is to provide funds for the study of the pharmacodynamics of derivative and homologues of hydrogenated aromatic amines.
- The attached proposal indicates the extent of the investigations that will be carried out in these facilities available at the investigation.
- 3. The funds for this project will be transferred using the as as a cut-cut in the usual manner.
- 4. The cost of this program for a period of one year will be \$16,216,00. To this must be added a four percent (48) service charge to the same of the for its services. The total cost for the above period will thus not exceed \$16,864,64. At the present time, the sum of \$3,000.00, representing \$7,680.00 to the is being committed. The balance of the total will be committed at a later date.
- by the Agency and are aware of the sensitive nature of this work.

TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS: APPROVED:

FUNDS:

Research Director

Date: 24 mar 55

Attachment: Proposal Inchief, TSS/Chemical Division

APPROVED FOR ADDITIONAL APPROPRIATION
OF \$8,864.64

Research Director

Date: 10 A uguet 1955 -

by a thority 1: 1977

THONES.

January 28, 1955



Enclosed is a research proposal concerned with the investigation of the pharmacological properties of aromatic amines. The cost of the project is estimated at \$16,216.00 for the duration of one year.

This proposal is submitted in duplicate to you and your board of directors. I hope that your board will pass favorably on this application.

Sincerely yours,

M. D.

Professor of P

Approved:

Fnclosures -



WAIL VINCE SOUTH OF THE GENCE O



A. GENERAL STATEMENT REQUESTING CONSIDERATION OF PROPOSAL

It is requested that the a project-concerned with the investigation of a propeal for their support of a project-concerned with the investigation of the pharmacological properties of certain arcmatic amines which possess sympathomimetic activity.

B. BRIEF REVIEW OF SCIENTIFIC BACKGROUND OF PROPOSED INVESTIGATION

It is generally considered, today, that the responses and physical adjustments of an organism to an environmental stress consist of two phases which occur in sequence. The first phase of rayful adjustment is conceived to be mediated through the autonomic nervous system; the second phase of adjustment to chronic stress is believed to mediate chiefly through the pituitary-adminal system.

Although the majority of sympathonine to amines which have been studied pharmacologically have been derivatives of alkyladnes, recent studies have indicated that a variety of non-aliphatic amines exist in the mammalian body and possess significant physiological activity. Two examples of such non-aliphatic compounds may be mentioned: Afrancaine, a metabolic product of epinephrine, and 5-hydroxytryptamine or serotonin, a substituted heterocyclic amine. Both advenouse and serotonin possess a physiological activity analogous to that of spinephrine.

Beta-tetrahydronaphthylamine is a prototype of a series of compounds first synthetized by Stern in 1888 which possess significant sympathomizatio activity, but which are not ethanolamines. One major difference between the actions of tetrahydronaphthylamines and those of the ethanolamines is that the actions of the former are not antagonized by ergotanine, nor are they potentiated by occaine. (Bouckaert, J. J., and Heymans, C., Arch. Int. Phirmacodyn., 35:137, 1529.) Ferhaps because the most obvious effects of tetrahydronaphthylamines are on body temperature, few studies of their general pharmacological actions, and specifically their sympathomizatio civityt, have been made since the classic study of Jonesou in 1909.

C. TECHNICAL DESCRIPTION OF THE PROPOSED WORK

Objectives:

It is proposed that the pharmacodynamics of a series of derivatives and homologues of beta-tetrahydronaphthylamine be studied. The pattern of studies would be arranged to meet the following objectives:

- a) The evaluation of the pharmacological effects of a series of such compounds. Particular attention would be paid to general toxicity (potency) and the effects of the compounds on the carriovascular system in particular, and on smooth muscle, in general.
- b) An attempt to relate the chemical structures of such compounds to their biological effects and their potencies in producing the effects. The chemical structure of the compounds under study would also be related, if possible, to the chemical structures of sub-finishances with similar biological activity.

WARNING TOTICE

o) The potentiation and the antagonism of the effects of the compounds under study will be investigated in the light of the actions of the same symergistists and antagonists on the biological activity of the naturally occuring ethanol saines. The biological interaction of the compounds to be studied and the sympathomisetic ethanol amines will be investigated, as well as the ability of the derivatives of tetrahydronaphthylamine to modify the responses of the autonomic nervous system to stress.

2. Methods:

The methods to be employed will include studies of toxicity of the compounds, their effects on the cardiovascular system in situ and the effects on smooth muscle containing organs - such as the Thome, and uterus in situ and in ritro, and such special studies, using specialized techniques, as my seem mecessary (such special studies might include electrophysiologica techniques for the study of skin temperature changes, central nervous system activity, activity of autocomic ganglia, etc.)

D. DESCRIPTION OF FACILITIES AVAILABLE FOR PERFORMING THE COMMEMPIATED WORK

Laboratory space and facilities for research on cardiovascular system including heart-lung preparations; facilities for smooth muscle work in vitro and in vivo. Facilities for toxicologic research. Facilities for electrophysicologic research on the central and autonomic system, including electroencephalography, isolated nerve potentials, oscillography, stersotoxic instrument, etc.

R. NAMES OF PRINCIPAL INVESTIGATOR AND PROFESSIONAL ASSOCIATES



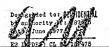


P. ESTIMATED DURATION OF PROJECT AND YEARLY BUDGET BREAKDOWN

It is estimated that the duration of the project will be about one year. An estimated budget for a year of such research would be:

ITEM	THUOMA	TOTAL	
Salaries Principle Investigator (Charged to University) Graduate Student Heuropharmacologist, 3 months at \$500 per month Recearch Pharmacologist, 5 months at \$500/month	\$3600.00 1500.00 2500.00	J. 47600.00	
Equipment and Supplies Including snimals, drugs, etc.	8 000	1200.00	
Travel and Other Expenses		800.00	
Workman's Compensation on \$7600.00 at 1.5%		111,.00	
Retirement on \$2000.00 at 7.79%		156.00	
	ubtotal	12,870.00	
Indirect Cost at 26% of Subtotal	1.	3,346.00	
2	OTAL	\$16,216.00	

Participation by the principle investigator, routine clerical help, laboratory space and utilities (including laboratory equipment for studies in experimental pharmacology and neuropharmacology).







incinediate or supervisory charge of the investigation. AGREEMENT FOR COOPERATIVE INVESTIGATION TO THE TOTAL PROPERTY OF costs dissect autilianal, to the region, the Randal rained or recents for factores costs .

ARTICLES OF AGREEMENT between the Board of Trustees of the of the First Part, hereinafter called the University, and Bota works of the Liebertshy. Distinguishing from this stud that do mode only for this investigation for the following gui-. W. The strengt contributed the this invasignation shall be half as a special form and skell to an earlied on the

the or or the University governing their members and an playese

Party of the Second Part, hereinafter called the Sponsor, for a cooperative investigation described as follows:

्ति हो से सेन्युक्त राजस्या सन् गारा सम्बद्धान संस्थानक स्वत्यान क्षा कि क्षा के स्वत्यान से स्वत्यान स्वत्यान स्वत्यान

a security of the transfer of the second process of the second se के जाता कर है जिसके हैं कि पूर्ण के क्षेत्रक कर है। उसके के किया है जाता कर किया है के किया है के अपने के अपने and the second Tan Sconent that goldly the Calvertly in worldy matter, which pay the " so of what on which that use on -

the investigation to be carried out by the University in the Department(s) of:

granuss, the same agent attached to a source of the same to the contract of

one of its research agencies, under the terms and conditions specified herein.

and a part of the direct of the solution and could be the Calmebray, "Specializes of the first of the probability of the gift து நூகு கேட்டிரும் ஒருக்கூறுக்காவும் எனக்கும் பிரிறிந்து திக்கிறியது. மடிரும் கொடர்க் ஒரு சுருக்கொண்

(1) This agreement is executed for the following period:

and the experience for the energy party and principle related to the energy in the energy of the ene with the understanding that it may be extended for additional periods under the same terms or such other terms as may be mutually agreed upon; provided that the Sponsor shall request such extension in writing not less than thirty (30) days before this original agreement expires. The University reserves the right to decline to extend this agreement beyond the expiration date if the scientific or scholarly results realized or reasonably anticipated do not in the judgment of its officials warrant continuation of the program.

to compare the contract of Characterist to the contract of the (2) The conduct of the investigation shall be under the full control of the University which will supervise and direct all experimental work and the computation and reduction of all results obtained, together with the placing of . these data into form for presentation. species in the process and a morning of the large of the process made in the control of the process of the form

(3) The University will furnish the necessary space for this investigation, together with heat, light, power, and water. In addition, it will permit the use of such laboratory apparatus and experimental facilities as it may possess which are not in use for other purposes. It is agreed, however, that apparatus, equipment, and other facilities not available in the laboratories of the University, and all materials and supplies required in the investigation, shall be purchased from and charged against the funds for this investigation provided by the Sponsor.

44-39

(9) The Sponsor agrees to pay the University the sum of investigation, such payments to be according to the following schedule:

(45728)

B

B

(All checks should be drawn payable to the mittance should be sent to the Bursar, a For projects carried on in the Colleges of the Business Manager, the Colleges of the Colleges of the Business Manager, the Colleges of the Business Manager, the Colleges of the Colle

IT IS UNDERSTOOD AND AGREED THAT the payment of the above sum as stipulated is conditioned upon the conduct of the investigation by the University with due diligence so as to secure the greatest possible progress consistent with the nature of the work.

(10) This agreement is subject to the applicable constitutional and statutory provisions of the State of

IN WITNESS WHEREOF, the authorized officers of the respective parties have hereunto set their hands and the seals of the parties, this _ APPROVED FOR THE UNIVERSITY BY: THE BOARD OF TRUSTEES OF THE Head of Department (Date) PARTY OF THE PIRST PART Dean or Director (Date) Comptroller Legal Counsel (Date) Secretary Bursar/Business Manager (Date) Party of the Second Part For the President (Date)

(4) All records of the investigation are to be the property of the University at the Sponsor. The original record shall be kept on file by the University, but copies of all such records shall be furnished the Sponsor or his duly authorized representative on request. The University shall have the exclusive right to publish at its discretion the r sults of the investigation in the form of a bulletin or bulletins, or otherwise. No account of a cooperative research project or reprints of scientific articles resulting from the investigation shall be published by the Sponsor or by any other agency, except upon approval of the division of the University or head of the department in which the work is being done.

Prior to such publication, no publicity shall be given to any of the results of the investigation except upon the recommendation or with the approval of the University and the Sponsor, unless the scientific value of a discovery made during the course of the investigation be such that, in the judgment of the University, the public interest requires prompt release or publication thereof. The publication, if any, shall contain a description of the investigation and a report of the results and conclusions; full credit shall be given the Sponsor and every person and agency having made

a significant contribution to the results obtained.

The same and the state of the same of the same

The first appropriate of the Aury Charles and

It is agreed that under no circumstances will the Soonsor state or imply in any publication or other published announcement that the University has tested or approved any manufactured product, manufactured, sold, or distributed under a specific brand, name, or trademark. It is also agreed by the Sponsor that it will not under any circumstances use the name of the University in any advertisement, whether with reference to the cooperative agreement or any other matter, without the prior approval of the University.

मिलाको । कार पुरानिकाक एर के नार्वकारी कार्यों कार्यों कार्यों कार्यों के स्थान है (5) Authorized representatives of the Sponsor shall at all times have access to the data secured and results computed from the investigation, subject, however, to the restrictions named in Article 4. The University will submit such reports of progress to the Sponsor as may seem desirable. An advisory committee may be named by the parties to consist of such persons and have such duties as may be mutually agreed upon.

(6) It is agreed that all results of experimental work of this investigation, including patentable discoveries, carried on under the direction of the scientific staff of the University, belong to the University and to the public and shall be used and controlled so as to produce the greatest benefits to the public.

It is agreed that if patentable discoveries grow out of the investigation and such discoveries have commercial value, the Sponsor, upon payment of the entire cost of securing a patent, shall be given free use of the patent as a non-exclusive licensee, it being agreed that other licensees shall pay the University a royalty which in the opinion of the University is fair to the Sponsor and to the public.

The Sponsor shall notify the University in writing whether it will pay the costs of filing an application and procuring a patent on any discoveries which may be patentable within sixty (60) days from the date when the University gives the Sponsor notice of any such discovery. In case the Sponsor does not wish to assume the expense of securing a patent, the University may, in its discretion, do so, and the Sponsor shall be given a non-exclusive license on substantially similar terms as other licensees.

(7) All technical, clerical, and other personnel necessary for the effective prosecution of this investigation shall be employed by the University and paid from funds provided by the Sponsor. Such personnel shall be employees of the University during their employment in this investigation and shall in all respects be subject to the rules and regulations of the University governing staff members and employees.

(8) The money contributed for this investigation shall be held as a special fund and shall be so carried on the books of the University. Disbursements from this fund shall be made only for this investigation for the following purposes: (a) Compensation for personal services (b) Materials and supplies (c) Equipment (d) Communication and travel (e) Employer's contribution to University Retirement System for retirement, disability, and death benefits for participating employees (f) Reserve for liability under Workmen's Compensation Act (11/2% of item a) (g) Other costs directly attributable to the project (h) Partial reimbursements for indirect costs of the University attributable). Such payments will be approved by officers of the University in to the contract (______% of____ immediate or supervisory charge of the investigation.

Section ...



47 37 14:5	300 <u>44</u>				
ate of Origin	al Forice	Time D:-	Allotana Derber	Accept of Ubligation	
+ may 5		17 34	5-2502-10-00		1
4.4	1000	92.10	X made	(8 964.64.	1/2455)
		2.00	- The Land	-	7735)
- (-			المناب المال		1
ddiMosel Renisotions	Period "wrated	The Fr-	Allotters	Asmat of Oilgating	
author =	21-14			16,864.64	10/2 17
4.1		0			
- A -	-				9,00
	Y 100 42			*	14
00 y 900 p	1 2 C	70			
4 10	9/1/55 2/1/5 16 2/1/56 dor 1958	11 243	54 1124		
	7				134,
	/			, , , , , , , , , , , , , , , , , , ,	12/3/1
3	/			1	* * * * * * * * * * * * * * * * * * *
	/			17	22
	/			1	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2031				176	
303;				176	